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MONGOLIAN MAMMAL NAMES

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The recent mammalian faunas of Mongolia and of other parts of Asia inhabited by Mongols are of extraordinary interest for their richness, their economic importance, their inclusion of notable game animals, their influence on history, and their affinities with the mammals of Europe on one side and of North America on the other. They are now being very actively studied by the Russians and also by other Europeans and by Americans.[1] Because of this interest and as an adjunct to such studies it seems worthwhile to present a list of Mongolian literary and colloquial names of mammals.

The value of recording local names for mammals is generally recognized although few accurate and adequate lists are available. In the case of many obscure dialects, the interest is largely ethnological or linguistic, but Mongolian is an old literary language, one of great historical importance, and one spoken today by millions of people scattered over the greater part of Asia, so that its animal names are of more general value. The traveler, hunter, and collector find it helpful or indeed necessary to know the native names of the animals that they observe or that they are seeking. The zoölogist is sure to find them interesting and probably will find them useful. They are important in gathering information on life habits and distribution, and knowledge of them may be essential in following accounts of travelers and students. Where no vernacular name exists in a European language, it is convenient to know and to adopt the Asiatic names. From Mongolian and allied languages we have already taken several vernacular names such as "kulan" and "dschiggetai" or "jiggetai."[2] The Russians use more Asiatic names than we do and probably others of these will become internationalized. Within reasonable limits this is highly desirable. It is, for instance, surely better to call the central Asiatic mammal "allactaga" or "alaktaga" than "leaping hare" or leaping mouse." It is neither a hare nor a mouse, it is only one of many leaping rodents, and

[1] For instance by G. M. Allen who has completed a two-volume report on the mammals of China and Mongolia soon to be published by this Museum.

[2] A better spelling would be "chikhitei," see p. 20.

some quite unlike the alaktaga are already called by those English names.

The autochthonous vernacular names are also a fruitful source for technical names, highly appropriate because of their geographic association and especially useful as it becomes increasingly difficult to find unpreoccupied Greek and Latin combinations. Several scientific names are already based on Mongolian: the generic names *Ochotona* and *Allactaga* and the specific name *Lepus tolai*, for instance, are derived from that language. Such "barbarous" names are deprecated by a few purists but all now admit them to be valid and they are being used increasingly. As a personal opinion, on grounds of mnemonics, of freedom from probable preoccupation, and of appropriateness, I would often prefer a scientific name for a Mongolian animal derived from a Mongolian root to another permutation of the shopworn Greek and Latin roots.

Aside from these and various lesser points in which a list of Asiatic mammal names may be of interest and of use zoölogically such a list may also have considerable interest to students of history, literature, ethnography, linguistics, religion,[1] and other subjects. The viewpoint in this paper is zoölogical but these other purposes may also be served to some extent.

In the following lists three forms of the Mongolian words are given in most cases. The name in ordinary Roman type is a transliteration of the literary Mongolian form. As this is not intended to be pronounced, no special explanation of the system used is necessary here. The names in Italics are approximate phonetic representations of colloquial forms. With the following exceptions, letters are to be pronounced as in English:

Simple vowels have about the continental values as in Spanish or Italian. *ü* and *ö* have nearly the German values, or those of French *u* and *oe*. These two letters and particularly *o* and *u* are, however, less sharply distinguished than is usual in European languages.[2] Long vowels are here represented by doubling the letter. The distinction between long and short vowels is not at all as in English in which most so-called long vowels are diphthongs quite unlike the short vowels. In Mongolian the long vowels are a literal prolongation of the short, or a duplication without a pause. Long vowels and the vowel of the first syllable are pronounced clearly, but others (short vowels after the first syllable) are generally reduced in length and in value, tending to a neu-

[1] Because in this instance the dominant religion, lamaistic Buddhism, is permeated with animal symbolism and mythology.

[2] They are not distinguished at all in Mongolian writing.

tral sound, much as do the vowels in the English articles "the," "a," etc., when these are not stressed. Such reduced vowels may nearly or quite disappear in pronunciation.

Kh is an open guttural intermediate between *k* and *h*, approximately Spanish *j* or German posterior *ch*.

S is always voiceless, as in "hiss," not as in "his."

G is always hard, as in "get," not as in "gem."

J is English *j* as in "jet."

Sh is English *sh* as in "shut."

Ch is English *ch* as in "chat."

Ng is English *ng* as in "singer," not as in "finger." *Ngg* is like *ng* in "finger."

In the Khalkha dialect the voicing tends to be reduced or lost in some nominally voiced consonants such as *g* or *d*, but this is a somewhat complex phenomenon not necessary for an approximate pronunciation and not taken into account in these transcriptions. In this dialect *b* also tends to have incomplete closure, approaching English *w*, and this phenomenon also sometimes affects other consonants.

Final consonants, especially *n*, and sometimes whole final syllables are often reduced and sometimes lost. In the transcriptions letters enclosed in parentheses may be pronounced or not at will. In rapid colloquial speech they are usually not pronounced. Final *n*, of very frequent occurrence in the language, may also take on the sound of *ng* in "sing," or may become a slight terminal nasalization of the preceding vowel. Thus *arsala(n)*, "lion," may be pronounced *arsalan*, *arsalang*, *arsalaã* (in which *ã* is a reduced nasal vowel), or *arsala*, and in all these cases the second and third *a*'s are reduced and indistinct, while the first is clearly pronounced.

The stress accent is on the first syllable, whether its vowel is long or short.

Of course these simple phonetic indications do not suffice for pronouncing exactly like native speakers, but they will produce a recognizable approximation.

The third form given for most Mongolian names is the written form in native script,[1] referred to in the printed text by numbers in parenthe-

[1] It will be noticed that the Mongolian script has nothing in common with Chinese. It is a true alphabet, derived from an ancient Semitic alphabet through the Sogdians and Uigurs. Although with certain drawbacks, it is relatively simple and easy to learn and is better adapted to the Mongolian language than are European alphabets. For historical reasons, the spelling of a word no longer corresponds in all cases with its pronunciation (a difficulty about equally present in English), and the literary language also differs to some extent from the colloquial dialects in grammar and vocabulary, but the divergences are not unduly great and the literary language has the great advantage of being more or less standard for all Mongols despite their numerous different spoken dialects.

ses. It is not anticipated that mammalogists or travelers will wish to learn to read these or will have occasion to use the written forms, but it seems desirable to give them. There is no standard way of representing Mongolian in Latin letters. The pronunciation may vary markedly in the different dialects and even with different speakers of the same dialect. The European ear generally fails to hear the Mongolian pronunciation exactly and each traveler, according to his nationality and personal idiosyncrasies, also has his own way of recording what he thinks he hears. The result is that hardly any two persons latinize the same Mongol words in the same way and often their representations are almost unrecognizable. In view of these facts the only way to identify and record a Mongolian word with no possibility of mistake is to give the written form in the literary language, as well as the colloquial spoken form. It is unfortunate that this has not hitherto been done.[1]

Unless otherwise specified, the spoken forms given are Khalkha Mongolian, the language of the politically and historically most important group of Mongols, approximately that of the present Mongolian Republic (or "Outer Mongolia"). The language as a whole has innumerable dialects, some so distinct that they are often classed as different languages. In most cases mammal names in other dialects are recognizable variants of the literary and of the Khalkha forms and I have not attempted to trace names through all the various dialects. In a few cases it has, however, seemed useful to give "Kalmuk" or Buryat names. The so-called Kalmuks (or Ölöts) are the western Mongols, now scattered from eastern Europe across Turkestan into western China and the Buryats are the Mongols of Siberia. Each of these groups includes a variety of dialects, which need no specification for present purposes. Khalkha is a single dialect although even it has slightly divergent subdialects.

The Mongolian vocabulary relating to mammals is very rich. From prehistoric times hunting has been a favorite occupation of the Mongols and their outdoor lives and nomadic habits have brought them into close contact with the fauna of the areas they inhabit. Speakers of various Mongolian dialects are now scattered from Manchuria to eastern Europe and from Siberia to Tibet, so that even now they are in contact with practically the whole Asiatic fauna except for animals confined to southernmost Asia. Their former extension was still greater and they retain vivid memories of it in their folklore and popular literature. More-

[1] These remarks apply with even greater force to geographic names. In many cases it is practically impossible to tell what Mongolian words are really intended by the latinized forms that are becoming standard on our maps of Mongolia. On many of the best Chinese maps it is customary to give the written Chinese names as well as latinized equivalents, and it would be most desirable to extend this practice to Mongolia.

over, and particularly for the south Asiatic mammals with which they have otherwise had little contact, their religious literature, mostly derived from Tibet or ultimately from India, and some of their popular literature from the same sources abound in stories of animals. The Panchatantra, for instance, a collection of animal fables of Indian origin still highly popular in Mongolia, frequently mentions lions, monkeys, elephants, and other animals that do not occur in Mongolia proper. Names for all these animals are now an integral part of the everyday Mongolian vocabulary although they cannot have occurred in proto-Mongolian. These names for exotic animals are, of course, of less interest from the point of view of the present paper and no attempt is made to list them exhaustively, but the most common and important of them are given.

All the common and striking central Asiatic mammals have Mongolian names generally consisting of a single root. As in other languages, differentiation between closely similar forms or names for relatively unfamiliar animals are often formed by adding a descriptive or qualifying word to a common root.[1] The language is also rich in descriptive, fanciful, or poetic names and paraphrases that more or less duplicate the ordinary vocabulary of animals. Thus "sheep's assassin" means wolf and "the eary one" means the wild ass, although there are ordinary simple roots for wolf and for wild ass. Except for a few special cases, these fanciful duplicating names are not included in the following lists. As would be expected, the vocabulary for domestic animals, and especially for the horse and horsemanship, is extraordinarily large. An exhaustive study of these terms would be of ethnological value, but in this paper only the more important roots of more directly zoölogical interest are included.

Male, female, and gelded animals are distinguished in several ways. Frequently there are different words for the first two or for all three, analogous to "bull," "cow," and "steer"; these are listed in the following vocabulary. More rarely a sex name for one animal is placed before the name of another to differentiate sex in the latter, exactly as we say "bull elephant" and "cow elephant." If sex must be specified and there are no separate words, however, the usual practice is to place the word

[1] Sometimes this is by simple juxtaposition of two roots and sometimes by the use of suffixes. The most common suffixes in such expressions for animals are *-tai -tei*, the particle of the unitive case, with the sense of "with," "having," or "characterized by," and *-chi*, with the sense of "one who uses, takes care of, or has to do with." Examples: *chikhi(n)*, "ear," *chikhitei*, "he with ears, the eary one" (an epithet of the kulan); *khoni(n)*, "sheep," *nokhai*, "dog," *khonichi nokhai*, "sheep dog."

ere, *ere*, (1), "male," or eme, *eme*, (2), "female," before the name of the animal.[1]

Mongolian adjectives and verbs do not indicate number and although number can be indicated in nouns this is not usually done. The simple root form is used for both singular and plural unless it is absolutely necessary to specify the plural and this is not clear from the context. In usual speech *mori(n)* means "horse" or "horses." If it is important to indicate more than one, they say "two horse," "three horse," "many horse," "herd of horse," etc., and the use of an actual plural is only a rare last resort, except for pronouns and some special instances among nouns not pertinent here. Zoölogists thus have no occasion to learn the Mongolian plurals, which are somewhat irregular and difficult, and these are not given here.

Besides specifying sex and, in domestic animals, geldings, Mongolian has for some animals special words for the young, analogous to "colt" or "cub." In a few cases there are even separate words for animals in their first, second, third, etc., years. These names with implication of age are not exhaustively listed below, but the more important are given.

In Mongolian, as in other languages, the nomenclature of animals does not correspond with scientific taxonomy. In some cases the Mongolian name is so broad or so ambiguous from a taxonomic point of view that it would be merely misleading to equate it with a definite species or genus. In other instances such equations can be made with reasonable accuracy and I have attempted to do this wherever possible. Even in such cases, however, it must not be assumed, unless evident, that the equivalence is exact. *Tarbagan*, for instance, is reasonably defined as *Marmota bobak*, because that is the species most familiar to the greater number of Mongols and generally called *tarbagan*, but the word would be and in fact is also applied to other species of *Marmota* or even of similar allied genera with which a Mongol comes in contact. On the other hand the Mongols do sometimes distinguish between species of one genus, as *Vulpes vulpes* and *Vulpes corsac* for which they have different names As in English, the Mongolian word for "mouse" (*khulagana*) includes a multitude of small rodents of various genera and families. Many accounts in which some local names are given state or imply that the local

[1] Some grammarians say that there are suffixes placed after adjectives of color that show that the animal is female when its name is qualified by one of these adjectives. If not an error, however, this at least is neither in common use nor generally understood among Mongols today, and it can be disregarded for any practical purpose. Mongolian is without suffixes of sex, analogous to *-ess* in English, and is also without grammatical gender or such distinctions as between *lobo* and *loba* ("wolf" and "she-wolf") in Spanish. The nearest approach to this is the very rare occurrence of such related words as *gunang* and *gunajing* which apply, respectively, to male and female 3-year old domestic cattle.

name designates only one local species, but this is seldom true, especially in dealing with a widespread language like Mongolian. The way in which we use English vernacular names like "mouse," "fox," "deer," and so on is rather closely analogous to the way in which the Mongols use their vernacular names and may serve as a criterion as to how seriously to take their equation with scientific names.

In addition to this degree of confusion or of vagueness in the language itself, the sources of information are not free of error. Zoölogists who have worked on Mongolian mammals are generally very deficient as linguists, the linguists are almost all without any definite knowledge of zoölogy, and most travelers are neither zoölogists nor linguists.[1] The present list could be made only by the very laborious effort of gathering information from dozens of different sources and collating it as well as possible. It still has recognized ambiguities and doubtless also has unrecognized errors. It is presented as an incomplete and imperfect first attempt in a remarkably difficult field, with the hope that later work will extend and perfect it. The most important zoölogical and linguistic works used are listed at the end of the paper. Various others only confirmed the information from these and so are not cited. Common names of generally accepted meaning require no citation of authority, but in cases of unusual or doubtful words such citations are generally made. No two authors use the same system of transliteration or of phonetic transcription, so utter confusion was avoided only by giving all words in the system used here, regardless of how they were written in the source cited. In addition to these works, some dozens of books of travel in central Asia have been examined but with the noteworthy exception of Przhevalskiy few of these give any Mongolian mammal names not available from other and linguistically more reliable sources.

WRITTEN MONGOLIAN NAMES

The numbers in parentheses throughout the following text refer to the correspondingly numbered Mongolian words here given.

[1] A single example will suffice to show the difficulty of gleaning reliable information even from the few exemplary travelers who do give any "native" names. Perry-Ayscough (in "With the Russians in Mongolia," London, 1914) says, "On two occasions we saw wolves. The first time the wolf was of the species called 'Chani,' and the next time it was an 'Unik.'" Evidently they saw one wolf, *chono*, and one fox, *ünege*. Here the words are at least recognizable. Often they are not.

[1]These are punctuation marks.

77 84 90 96 102 109 115 121 128 135 141 147
78 85 91 97 103 110 116 122 129 136 142 148
79 86 92 98 104 111 117 123 130 137 143
80 87 93 99 105 112 118 124 131 138 144
81 88 94 100 106 113 119 125 132 139 145
82 89 95 101 107 114 120 126 133 140 146
83 108 127 134

GENERAL

amitan, *am(i)ta(n)*, (3). Living thing, organic creation in general.

adugusun, *aduusa(n)*, (4). Animal. This common word is recognizable in most dialects but becomes *aase* in Kansu (de Smedt and Mostaert).

süün tezigel-tei, *süün tejeeltei*, (5). Mammal. Literally "with milky food," a descriptive phrase adopted to translate "mammal" into Mongolian, rather than a purely native conception of a natural group.

görögesön, *göröös(ön)*, (6). Beast, quadruped, wild animal.

Used alone, this word often means antelope.[1] It is often used with qualifiers in descriptive expressions for various animals, for example *khara göröös(ön)*, "black beast," for "bear."

ang, *ang*, (7). Game, game animals, objects of the chase. Occasionally used to distinguish wild from domestic animals, as in *ang gakhai*, "game pig," i.e., "wild boar."

zerlik, *dzerlik*, (8). Wild, used in much the same way as in English. *Dzerlik gakhai*, "wild boar."

mal, *mal*, (9). Horned cattle, cattle in general, domestic animals.

sürüg, *süreg*, (10). Flock, troop, band (of anything, including animals, and among the latter particularly of sheep and goats).

adagun, *aduu(n)*, (11). Herd, usually of horses but occasionally of cattle or sheep. Also by extension an animal such as enters into such herds or flocks.

zulzaga, *dzuldzaga*, (12). Young, the young of a mammal or bird, often used (after the name of the animal concerned) to designate the young when no specific word is available, e.g., *gakhai dzuldzaga*, "young pig."

Some other terms, as of sex or age, that can be applied to various different animals are given below in connection with the animals primarily concerned (for example *ölögchin*, "bitch of domestic dog," also used to designate the female of other carnivores).

INSECTIVORA

zaraga, *dzaraa*, (13). Hedgehog. *Erinaceus* and *Hemiechinus* spp.

nomon, *nomon* or *nomin*, (14). Mole, talpids in general. Usually as *sokhor nomin*. [Sokor, *sokhor*, (15), "blind."] Also *mana sokhor*, which is likewise applied to shrews. Ognev gives *adda* for *Talpa altaica*

[1] To such an extent that some students (e.g., Poppe) give only this meaning for the word. This is a popular usage, but the word originally meant "beast" and is still so used. Nor is it the specific word for "antelope," see below. A curiously analogous shift of meaning has occurred in English in which the word "deer," originally any animal (cf. German "Tier"), has come to mean only one kind of animal and that a European analogue of the Mongolian antelope.

in Buryat, but I do not find this in dictionaries, where Podgorbunskiy gives *udun khulugana* as the Buryat for mole or shrew (which he specifies as "*Crossopus fodiens* Pall.").[1]

Pallas gave "saartucholgonà" (*saartukholgonaa*) as a Kalmuk name for *Desmana moschata*. The second part of this is probably a variant of *khulagana*, "mouse," but I have not found the word, or words, elsewhere except as a quotation from Pallas and cannot further elucidate its etymology. Podgorbunskiy gives *küdüri* as a Buryat name for this animal. This is an obvious transfer of meaning from the musk-deer, küderi, *khüdere*, see below under Cervidae.

PRIMATES

sarmakcin, *sarmakchi(n)*, (16). Monkey. This is the common word for monkeys, very familiar to Mongols in tales of southern origin if not in person. The following two words seem to be simple synonyms without conscious implication of zoölogical differences.

bicin, *bichi(n)*, (17), or becin, *bechi(n)*, (18). Monkey.

mecin, *mechi(n)*, or *michi(n)*, (19). Monkey. (A variant of the preceding word.)

samza, (20). Monkey. (A literary word.)

kümün, *khün*, (21). Man, mankind. There is, of course, an enormous vocabulary relative to human beings but this, meaning man in the general sense, is the only word pertinent here.

CHIROPTERA

As in some European languages, a bat may be called "flying mouse," neskü kuluguna, *niskhü khulagana*, (22) or "winged mouse," zibertei kuluguna, *jibertei khulagana*, (23). Kovalevskiy and Golstunskiy give a literary form zib (24), doubtless related to ziber, *jiber*, wing, but I do not find this in colloquial use.

bakbagai, (25). Bat in literary usage, as agreed by all authorities (e.g., Kovalevskiy, Golstunskiy, Bimbaev), but it does not appear now to have this sense in colloquial usage unless qualified by an adjective. Colloquial forms of bakbagai, alone, (*baabagai*, etc.) have come to mean "bear," not "bat" (Burdukov, Poppe, and other reliable authorities) An exception is Kalmuk in which *bavukha*, probably cognate with bakbagai, still means "bat" (Mayorov). But *sarisan baabagai* (Burdukov) or *sarison babgay* (Bimbaev) means "bat" in Kahlkha. The first word in this expression is the literary sarisun, (26), and means "leather" or

[1] *Ada* means "devil" or "vagabond," which perhaps has no connection with Ognev's *adda*.

"membrane," clearly in reference to the wings. The Ordoss form is *sarisu bagwaakhaa.* The Kansu Mongols use *sorodze bierdu* and the Shirongol *surusu bilduu* (de Smedt and Mostaert), in which the first word is cognate with sarisun but the second is of unknown origin or separate significance. Bimbaev also gives *sarison erbekhiy* as Khalkha for "bat." The second word I take to be erbekei, (27), in which case the phrase means "leathery or membranous butterfly."

ümeshi. Given by Podgorbunskiy as Khalkha for "bat," with the Buryat variants *rümshe, ürmüshe,* and *khermeshi.*[1]

temegelzin, (28). Literary word for "bat" (Kovalevskiy, Golstunskiy). The corresponding Khalkha would probably be *temeelji(n)* but I have not confirmed its current use.

LAGOMORPHA

taulai, *tuulai,* (29). Hare, rabbit. Especially *Lepus tolai,* the specific name of which represents this Mongolian word, but also leporids generally.

cindagan, *chindaga(n),* (30). Arctic hare, *Lepus variabilis.*

ogotona, *ogotona,* (31). Picas or coneys, *Ochotona* spp., the generic name of which represents this Mongolian word. It is commonly stated that the name means "short-tailed," but this is questionable. One of several Mongolian words for "short" is *okhotor* (or *ogotor*), but it is possible that an accidental punning resemblance has suggested the etymology. The Mongolian word for "tail" is *süül,* which obviously is not present in *ogotona,* nor can I find that the latter is ever used adjectivally to mean "short-tailed," but only that it is the explicit name for these animals. Kovalevskiy defines ogotona as "*Sciurus striatus,*" but this is simply an error corrected by Golstunskiy and others.

Przhevalskiy, in Büchner, gives *ogotona* as Mongolian for "*Lagomys dauricus*" and for other species of "*Lagomys*" gives other names, as follows:

Lagomys melanostomus: ama-tsagan. [*Ama* means "mouth, gate, household," but perhaps another word is intended; *tsagan* means white; "white mouth" would ordinarily be *tsagan ama.*]

Lagomys roylei: ama-tsagan-khulugono [the last element clearly for *khulagana,* "mouse"].

Lagomys erythrotis: sarik-tiki. [Not identified; there is probably

[1] I have not found a literary form of this word. It is somewhat far-fetched but not impossible that it is related to ürüme, meaning "scum on milk or cream"—ürüme kulagaiyci is "dragon fly," cf. erbekei, "butterfly," applied to the bat. *khermeshi,* on the other hand, suggests kereme, "squirrel."

some error as the syllable *ti* does not occur in ordinary Mongolian, being usually represented by ci, *chi.*][1]

It seems doubtful whether these are names, properly speaking, rather than descriptive phrases, and it is highly unlikely that they are really used to distinguish the species, as listed. In any case *ogotona* is applied to any species of the genus and not exclusively to *Ochotona daurica.*

RODENTIA

Sciuridae

keremu, *khereme(n)*, (32). Squirrels in general.

olbo, *olbi*, (33). Flying squirrels, *Petaurista* spp.

zirukebchi, (34). Striped squirrel, *Eutamias asiaticus.*

The colloquial Buryat name *jir-khe* (Przhevalskiy in Büchner, Podgorbunskiy, the latter also giving as variants in Buryat dialects *dirke, zhirkhi, zhirki*) clearly is related to, but is not the whole of, the literary name. These words suggest ziruke, *jir(u)khe*, which means heart, strength, courage, etc., and to which zirukebchi is probably related.

dzumburaa. Spermophiles, *Citellus* spp.

tarbagan, *tarbaga(n)*, (35). Marmots, *Marmota bobak*, etc.

mondul. Young marmot (in its first year).

Castoridae

kaligun, *khaliuun*, (36). Beaver, otter. See this and the following word on p. 17.

mingzi, *minji*, (37). Beaver, otter.

Muridae (*sensu lato*)

kuluguna, *khulagana*, (38). Mouse, general name for murids in a broad sense. As in most languages, a single word is used to cover the house mouse and almost all small animals that are at all mouse-like, even some that are not rodents (cf. *jibertei khulagana* in Mongolian or "Fledermaus" in German for "bat"). Different sorts of mouse-like mammals are distinguished, if at all, by qualifiers placed before *khulagana*, in a way capricious, descriptive, or merely personal, seldom involving any real and rational popular classification and not, on present data, capable of equation with a zoölogical system. Examples (from Kovalevskiy), are mògaiichi kuluguna, "snake mouse,"[2] müsüchi kuluguna,

[1] The original might be a dialect variant of (written) sarig(u) ciki, "crooked ear," but this is merely a guess with no real value.

[2] Mogaii = snake. On the sense of -chi in this and numerous other qualifiers see p. 5.

"ice mouse," mürgülchi kuluguna, "nodding mouse," usuchi kuluguna, "water mouse," and others. Only the next expression in this list seems sufficiently common and explicit to warrant further notice.

üker kuluguna, *ükher khulagana*, (39). Rat. Literally "cattle mouse," applied to the common rat and to undistinguished relatives by both Khalkhas and Buryats. Bimbaev gives "*chonon Kholgono*," "wolf mouse," for rat.

Podgorbunskiy gives *khara khu* for *Mus decumanus* in a Buryat dialect (in addition to variants of *khulagana* for "mouse" and *ükher khulagana* for "rat" in most Buryat dialects). *Khara* means "black" and *khu*, if not a misprint, may be a highly reduced form of *khulagana*. Przhevalskiy, in Büchner, gives *shishi* for *Mus cherrieri*.[1]

Przhevalskiy, in Büchner, also gives *nomin-sokhor* for *Siphneus* [= *Myotalpa*] *fontanieri*. As noted above *nomin-sokhor* is a common name for moles or mole-like animals and this is evidently a case of mistaken identity and not of an explicit name for this animal. He also gives *bardaa* for *Gerbillus* [or *Rhombomys*] *opimus*.[2]

Dipodidae

alakdaga,[3] *alakdaga*, (40). Allactagas or so-called jumping mice, *Allactaga* spp., the generic name of which is this Mongolian word, and dipodids in general. Following Pallas, it is almost always stated that this word means "variegated [piebald] colt." It is true that it is nearly homophonous with *alag daaga*(*n*), which does have that meaning, and the etymology may prove to be correct, but there are several facts that cast doubt on this. In correct Mongolian two roots, such as *alag* and *daaga*, are not combined into one word, but *alakdaga* is written as one word.[4] The last two syllables, written and pronounced -daga, are not really the same as the word for colt, written dagagan and pronounced *daaga*(*n*).[5] It would also be strange, even though not impossible, that the special word *daaga*(*n*), meaning a colt in its second year, was used instead of the more common word *unaga*(*n*), or some other. Finally, this would be a peculiar designation to apply to an animal that is not

[1] In the literary language, at least, shishi means a kind of grain (cereal), the Chinese kaoliang.

[2] Probably reliable at least in a general way, but I do not find it elsewhere and the fact that *bardaa* may also mean "abundant" (although not the usual word with that meaning) suggests a possibility that Przhevalskiy misunderstood his informant.

[3] Usually transliterated alagdaga or alagdaaga. The usual pronunciation is apparently *alakdaga* or *alaktaga*, so there is no reason to insist on a change in our customary spelling allactaga.

[4] By Europeans it is sometimes written as two words or with a hyphen, but as far as I have found the Mongols themselves write and use it as a single word.

[5] Here, again, Europeans sometimes write *alagdaaga* or a similar form, but evidently because of belief in this etymology, whether true or false. Nor is it impossible for dagagan, *daaga*(*n*), to have become reduced to daga, *daga*, in Mongolian, but this would require more evidence than has been adduced.

piebald and does not at all resemble a colt. It is thus conceivable that the supposed derivation of *alakdaga* is amateur etymology mistaking a punning resemblance for a historical derivation.[1]

The Kalmuks call these animals *yalma* or *yalmn*, a loan-word absent from other Mongolian dialects.

CARNIVORA FISSIPEDIA

CANIDAE

nokai, *nokhoi*, (41). Domestic dogs in general.

ölögcin, *ölögchin*, (42). Bitch (of domestic dog). Also called simply *eme nokhoi*, "female dog." *Ölögchin* is also prefixed to the names of other carnivores to designate the female.

gölöge, *gölgö*, (43). Puppy (of domestic dog), or young of various animals.

cinoa, *chono*, (44). Wolf, *Canis Lupus*. This common word is almost universal in the Mongolian dialects, with slight phonetic variations. The pronunciation of the first vowel as *o* is not ancient but is now general (In Khubilai Khan's day the word was *chinoo*). "Female wolf" is *ölögchin chono*, literally "bitch wolf." Przhevalskiy says that the Tibetan wolf "is most probably identical with the species we heard the Mongols in Kansu call *tsobr*." No word like *tsobr* is given by de Smedt and Mostaert in their exhaustive work on the Mongolian spoken in Kansu, but they give the figurative name *dziuuranggee* (and not any form of *chono*) as Kansu Mongol for "wolf." This comes from the root *dziuu-* (literary zagu-, Khalkha *dzuu-*) "bite," and it is possible that Przhevalskiy's "*tsobr*" is another derivative of this root.[2]

ünegen, *ünege(n)*, (45). Fox, *Vulpes vulpes*, and used with qualifiers for other fox-like animals.

tsükebüri, (46). Jackal, *Thos aureus*. This literary word probably corresponds with the Buryat spoken word given by Podgorbunskiy as *suubri* and defined as *Cuon alpinus*, and it is not inherently improbable

[1] The error, if it is one, could be made by the Mongols as well as by Europeans. Approximation of originally distinct words because of false popular etymology is a common linguistic phenomenon. It should be added that Vladimirtsov, perhaps the best linguistic authority, equates *alakdaga* with *alag-daaga(n)* and even writes it as a compound word and with the third vowel long. This is strong evidence against my tentative suggestion, but Vladimirtsov does not give his reasons or authority nor does he consider the manifest difficulties.

[2] Gilmour states that in his day (some fifty years ago) the Mongols superstitiously refrained from pronouncing the correct word for "wolf" (i.e., *chono*) but called wolves "dogs," short for "wild dogs." Later travelers do not seem to have noticed this unless the loss of the word *chono* in Kansu has this cause. On the other hand, some students of Marco Polo find in an obscure passage evidence that in his day instead of calling wolves "dogs" the Mongols called their hunting dogs "wolves"—this, however, is most uncertain and I think it probably a wrong reading of Polo's text. Modern Mongols sometimes call dogs *chonok* which they relate to *chono* by popular etymology, but in fact *chonok* has no connection with *chono* and is a corruption of the Tibetan phrase for "black dog."

that the same name would be applied to these two animals by Mongols familiar only with the latter at first-hand. Burdukov gives *doobori* for "jackal," and this might be cognate with tsükebüri. Mayorov gives *shahl chon* as the Kalmuk name of the jackal, in which *chon* is "wolf" (*chono* in Khalkha) and I take *shahl* to be a borrowed form of the Persian word from which the name of this animal in most European languages, including English, has been derived (Mayorov intends the second *h* in *shahl* to be pronounced as an open guttural). Bimbaev calls the jackal *shara nyudun chono*, literally "yellow-eye wolf," although Burdukov says that *shara nüde(n)* (the same words as Bimbaev's *shara nyudun*) is the hyaena. Here, again, it is unlikely that the Khalkhas or other eastern Mongols would distinguish clearly between somewhat similar animals not very familiar to them. Kovalevskiy also gives for "jackal" the literary words siranut, (47), and cinontsar, (48). Very commonly (e.g., in the Bird ms. of the Panchatantra, published by Vladimirtsov) where "jackal" occurs in tales of southern origin the Mongols substitute for it the more familiar fox.

kirsa, *khiarsa*, (49). The steppe-fox or corsac, *Alopex corsac*. "Corsac" is a cognate eastern Turkish name.

Ursidae

bakbagai, *baabagai*, (25). This word is in wide use for "bear" in general or as an object of the chase, although, as noted above, its literary dictionary meaning is usually given as "bat."[1]

ütege, (50). This is the classic literary word for "bear," used with various qualifiers for various sorts of bears not very exactly identifiable zoologically.

kara görögesön, *khara göröös(ön)*, (51). Literally "black beast." A colloquial expression for "bear."

Przhevalskiy speaks of a semi-fabulous "kung-guressu," *khün göröösö* in the Khalka transcription used here, literally "man-beast" the description of which suggests a bear although the natives insisted that it was not that animal. A skin shown to him as of the man-beast was, however, a bearskin. The argument appears to be settled by the observation of de Smedt and Mostaert that "*k'un k'uorose*," which is exactly equivalent to Khalkha *khün göröösö*, is the Kansu Mongol ("Monguor") name for the Tibetan bear. They also give *nokhuee k'uorose*, which

[1] Vladimirtsov gives babagai, *bawagai*, *baabga*, etc., as modern words for "bear." He says that babagai is a modern written form not present in older writing or in the literary language. He does not mention the literary word bakbagai. Difficult as it is to explain the shift in meaning, it nevertheless seems to me certain that bakbagai and babagai are the same word, the latter merely a modern variant in which the k, now usually silent, has been dropped.

would be *nokhoi göröösö* in Khalka, i.e., "dog-beast," for the black bear in the Kansu dialect. Ognev gives *tinggeri-nakhoi* for *Ursus pruinosus* in the Tsaidam dialect. This is obviously a variant of *tenggri nokhoi*, "heaven-dog" and comparable to the Kansu "dog-beast." Ognev gives *kholodaa*, a word that I do not identify in other dialects, as the Nan-Shan name for this animal and Mayorov gives *ayu* as Kalmuk for "bear."

Mustelidae

solonggo, *solonggo*, (52). *Mustela alpinus*, and various similar species. Called *Kholunggo* by the Buryats.

kürene, *khürene*, (53). *Putorius* spp. and probably several other mustelids, polecats. Burdukov gives *ümkhii khürene*.

üyeng, *üyeng*, etc., (54). The ermine, *Mustela erminea*.

This word appears in a confusing variety of phonetic guises, *ügün*, *üin*, *yuyn*, etc. *Ugyun*, given by Ognev for *Mustela nivalis*, appears to be one of these variants. The animal is also called descriptively "white squirrel," *tsagan khereme*.

bulagan, *bulaga(n)*, (55). The sable, *Martes zibellina*.

dorogon, *dor(o)go(n)*, (56). Badger, *Meles meles* and allies.

zegegen, *dzeege(n)* or *dzeeke(n)*, (57). Wolverine, *Gulo gulo*.

sub, *sub*, (58). Otter, *Lutra lutra*. See also the following two words, with the second of which it is sometimes combined as *sub khaliuun*.

mingzi, or minzi, *minji*, (37). Otter, beaver. See the next word.

kaligun, *khaliuu(n)*, (36). Otter, beaver. This and the preceding word apply to both of these unrelated but in some respects similar animals. Burdukov gives *khaliuu(n)*, *temeen khaliuu(n)*, and *minji* for "otter (beaver)" and for otter alone gives *sub-khaliuun* [*temeen* = camel; for *sub* see above]. Podgorbunskiy gives *khaluun* (Buryat) for the "American beaver" and *menzhin* (Buryat) or *mizhi* (Khalkha) for the "Kamchatka beaver," probably intending the otter. For "otter (*Lutra vulgaris*)" he gives *khaluun* (Buryat) and *khaluu* (Khalkha). Golstunskiy gives literary forms minzi for beaver and mingzi kaligu for "Kamchatka beaver" or sea otter. Mayorov gives *suv* and *booltsn* as the Kalmuk for "otter." Bimbaev (Khalkha colloquial) gives *minji* for "beaver" and *khalyu* for "otter."[1]

Hyaenidae

The eastern Mongols do not appear to have a proper name for the hyaena, which does not occur in their homeland. Ognev gives *dom* as

[1] All these are, of course, in Russian and the words used are bobr = beaver and vidra = otter Some of the ambiguity may be Russian rather than Mongolian.

its Kalmuk name. Burdukov gives *shara nüde(n)*, literally "yellow eyes," as its Khalkha designation (see "jackal," above). Kovalevskiy gives the literary descriptive expressions sira ütege, (59), literally "yellow bear," and nokai-iin zargacin, (60), literally "dog's butcher."

Felidae

mii, migui, *mii* (61). Domestic cat. Burdukov also gives *muur* as colloquial Khalkha (also in Manzhigeev), and Mayorov gives *mis* as colloquial Kalmuk. Other dialect forms and variants are moor, moora, *moor, meer, mir, moro, miore.* All these names are evidently onomatopoeic. Male and female are designated by *ere* and *eme.*

arsalan, *arsala(n)*, (62). Lion, *Felis leo.*

bars, *bar*, (63). Tiger, *Felis tigris.* This word means "tiger" primarily but is also applied to the leopard. In formal literature the Sanskrit name shardula is sometimes used for "tiger."

irbis, *irbis*, (64). Snow leopard, *Felis uncia.* Although most frequently applied to this animal and used by some Russian zoölogists as a vernacular name for it, *irbis* is also sometimes applied to the ordinary leopard and to the tiger. *Felis uncia* is sometimes called "ounce" in English, but the ounce is properly the lynx (indeed "ounce" and "lynx" are derived from the same classical root) and irbis would be the best vernacular name.

silügüsün, *shülüüse(n)*, (65). Lynx, *Lynx lynx.* This protean name is both written and pronounced in many different ways, but all recognizably related to the forms here given. Kovalevskiy quotes a fanciful literary form oi-iin nokai, (66), literally "dog of the forest."

manul, *manul*, (67). *Felis manul.* Podgorbunskiy also gives an apocopated Khalkha form *man.* The word is eastern Turkish, in the same form, *manul.*

In addition to the above common names for felids, there are several literary names little used or not used colloquially in Khalkha. These include (from Kovalevskiy) barcik or barsik, (68), and bürügesü, (69), "small panther," borong, (70), "wild cat," malur, (71), "a kind of striped wild cat," tsogontai, (72), "wildcat" (the meaning is obscure but perhaps indicates an animal with a burrow), and gendü, (73), "small male panther, male carnivore." Przhevalskiy in Büchner gives *mori-chelesün* for *Felis pallida*, perhaps, in the transcription used here, *mori(n) shülüüse(n)*, literally "horse-lynx."

CARNIVORA PINNIPEDIA

kab zigasun, *khab dzagasa(n)*, (74). Any pinniped, seal or walrus. *Dzagasa(n)* means "fish." *Khab* is a sort of intensifying particle or exclamation, usually before another word beginning with *kh-*, and also is applied to a certain kind of small dog. Its significance in this phrase is obscure.

CETACEA

Kalimu, (75). Whale, compare Manchurian *kalimu*. A literary form in Mongolian.

buu dzagasa(n). Whale. This is homophonous with "gun fish," but the connection is not apparent.

aborgo zigasun, *aborgo dzagasa(n)*, (76). Whale. The name is descriptive only and means "enormous fish." It is also applied to the sturgeon and to porpoises or dolphins.

PROBOSCIDEA

zagan, *dzaan*, (77). Elephant.[1]

mamont dzaan. Mammoth, *Mammonteus primigenius*. This is not the origin of "mammoth," "mammut," "mamont," or other forms of this international word, but on the contrary is a recent loan-word from Russian. It is universally stated that "mammoth," etc., is from a "Tartar" word, but no similar or possibly cognate word is known in Mongolian and as far as I have been able to discover none is known in any Asiatic language to which the extremely vague designation "Tartar" might apply. If this is really the origin of the word, it appears either to have been lost in living native languages or to have been borrowed in an unrecognizably distorted form.

Podgorbunskiy says that some Buryats call the mammoth remains *arsalan zan* [*zan* is the Buryat equivalent in some dialects of Khalkha *dzaan*], "lion-elephant," and also that the elephant is sometimes called *arsalan*, properly "lion," by the Buryats. The confusion suggests the fact that uneducated Buryats had no idea what either an elephant or a lion really looked like.

PERISSODACTYLA

Horsemen from the earliest known times, the Mongols have a very large vocabulary for horses and everything relating to them. Only a few of these words are given here.

[1] Aside from numerous encounters with elephants in the days of their conquests and the important rôle of elephants in Buddhist and other southern stories, elephants have been exhibited in Urga (Ulaan Baator), and also in Lhasa.

morin, *mori(n)*, (78). The domestic horse in general.

gegü (and several recognizable variant spellings), *güü*, (79). Mare.

azirga, *adzarga*, (80). Stallion.

unagan, *unag(an)*, (81). Colt (in its first year.)

dagagan, *daaga(n)*, (82). One-year old colt (i.e., in its second year).

sidüleng, *shüdeleng*, (83). Two-year old colt (in third year.)

kizagalan, *khidzaalang*, (84). Three-year old colt (in fourth year).

soyogalan, *soyoolong*, (85). Adult horse (in fifth year and later).

Some of these are names like *shüdeleng*, can be applied as qualifiers to other animals, such as sheep.

akta, *agta*, (86). Properly "gelded" of "gelding" of any sort, as in *agta mori(n)*, "gelded horse," but also used alone, as is "gelding" in English, to mean a gelded horse. Cf. *ata*, "gelded camel."

elzigen, *eljige(n)*, (87). Domestic ass.

lagusa, *luus(a)*, (88). Mule.

taki, *takhi*, (89). Wild horse, *Equus przewalskii*. This word is generally omitted from colloquial dictionaries but it occurs in Mongolian literature and is also given by Przhevalskiy, so it is certainly a Mongolian word and is probably now in use in this sense.

zerlik adagun, *dzerlik aduu(n)*, (8 + 11). Literally "wild herd [of horses]," given by Przhevalskiy, "dzerlik-adu, i.e., 'wild troop,'" as Mongolian for "wild horses." It is not clear whether wild or feral horses or, as is probable, both are meant to be included. It is apparently merely a literal description and not properly a name for these animals.

kulan, *khula(n)*, (90). Asiatic so-called wild ass, *Equus hemionus*. See remarks on the next word.

cikin-tei, cikitei, *chikhitei*, (91). This is the true Mongolian form (written and spoken Khalkha) of the word that has reached us as "*dschagatai*," "*jagatai*," and in various other guises as a Mongolian name for *Equus hemionus*. It is merely the unitive case of *chikhi(n)*, "ear," and it means "eared, eary, with ears." As an epithet it is equivalent to "Hey, you with the ears!" and is applied to anything with striking ears. It is not specifically a name for *Equus hemionus*.

There has been much confusion regarding the names "kulan," "*chikhitei*" (in its various transformations), and "kiang." Some authorities have held that these are three races, characterizing Turkestan, Mongolia, and Tibet, respectively, others that "kulan" is the Turki and "chikhitei" the Mongolian name for one race, the kiang being different, others that "chikhitei" is the Mongolian and "kiang" the Tibetan name

of one race, the kulan being different, and still others that these are Turki, Mongolian, and Tibetan names for the same animal. Without entering into the zoölogical problem as to the separability and distribution of races, the following seem to be the facts regarding these three words. "Kulan," with minor differences in local pronunciation, is a pan-Altaic word, occurring in Mongolian, Turki, and related languages and dialects, applied by all these peoples to any representative of this group of animals, whether it live in Turkestan, Mongolia, or Tibet. "Kiang" is the Tibetan word of equivalent application. Since the Tibetans have little to do with other countries, it happens that "kiang" is mostly used of the Tibetan animals, which is merely a function of the distribution of the language to which it belongs and not anything specific in the meaning of the word. "Chikhitei" is purely Mongolian and is a descriptive or fanciful cognomen, such as are common in Mongolian, for the animal of which the proper name in Mongolian as in Turki is "Kulan" [*khula(n)* in Khalkha dialect].

ARTIODACTYLA

Suidae

gakai, *gakhai*, (92). Domestic pig. The male is *ere gakhai*, bodong, or *bodong gakhai;* the female *eme gakhai* or *meg(e)ji;* the young *gakhai dzuldzaga.*

megeji, *meg(e)ji*, (93). Sow.

bodong, *bodong*, (94). Wild boar, boar. Also *dzerlik gakhai*, literally "wild pig," and *ang gakhai*, literally "game pig."

kaban, *khaban*, (95). Boar, pig. Cf. Russian *kaban.*

The following names are chiefly or wholly literary: kubusun, (96), "boar," asamak, (97), "gelded pig," toroi, (98), "suckling pig," torogoi, (99), "young pig."

Camelidae

temegen, *temee(n)*, (100). Camel. There appears to be no special name for wild camels, which are called *dzerlik temee(n)*, "wild camel," or *temee(n) göröös(ön)*, "camel beast." The latter is given by Vladimirtsov (note to the Panchatantra) in a literary form.

bugura, *buura*, (101). Male camel.

inggen, *ingge(n)*, (102). Female camel.

ata, *ata*, (103). Gelded camel. Or *ata temee(n).*

botogon, *botogo(n)*, (104). Young camel.

torom, *torom*, (105). Yearling camel.
taiylak, *tailig*, (106). 2-year old camel.[1]

Cervidae

bugu, *buga*, (107). Deer, buck. Especially *Cervus elephas* but also a general term for cervids. It is used with many different qualifiers to form descriptive and local designations for various sorts of deer.

sogo, *sogo*, (108). Doe, especially of *Cervus elephas*.

ili, *ili*, (109). Faun, especially of *Cervus elephas*.

zorgul, *dzorgul*, (110). Yearling deer, especially of *Cervus elephas*.

kandagai, *khandagai*, (111). Moose, elk in the European sense, *Alces* sp. Podgorbunskiy gives variants of büir, *büir*, (112), for the male and of ingge, *ingge*, (102), for the female among Buryats but these are also used for other animals, at least in Mongolian generally, e.g., for camels.

maral, *maral*, (113). Wapiti, *Cervus canadensis*.

küderi, *khüdere*, (114). Musk deer, *Moschus moschiferus*.

zür, *dzür*, (115). Roe-buck, *Capreolus pygargus*.[2]

segül urto bugu, (118), which would be spoken *süül urta buga*. Literally "tail-long deer," a literary expression for the "mi-lu" (its Chinese name), the mysterious domesticated *Elaphurus davidianus*.

Bovidae

üker, *ükher*, (119). Domestic horned cattle, cow in a general sense.
buka, *bukha*, (120). Bull.
üniyen, *üniee(n)*, (121). Cow.
sir, *shar*, (122). Ox.
tugul, *tugal*, (123). Calf.
biragu, *biruu*, (124). 2-year old calf.
gunan, *gunang*, (125). 3-year old ox or bull.
gunazin, *gunajing*, (126). 3-year old cow.
dönen, *dönüng*, (127). 4-year old ox or bull.

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[1] Most Turkish dialects have a word cognate with this but with a curious shift of meaning, applying it to horses, not camels.

[2] This definition is reasonably certain but the Russian linguistic works are confused and contradictory for this and several other words, making no clear distinction or disagreeing with each other as regards goats, antelopes, and some deer. The words need checking by a zoölogist in the field. Aside from *dzür*, the following may be mentioned:

Gura (116), defined by Kovalevskiy in Russian as "samets dikikh koz" ("male wild goat") but in French as "espèce de chevreuil sans cornes," which can hardly be called equivalent. Golstunskiy gives the same word but defines it "saygak, samets saygi" ("male antelope"). Burdukov gives *gur*, evidently the same word, as Khalkha for "dikiy kozel" ("wild goat"), and Podgorbunskiy gives *gurogun*, *guran* as Buryat for "koza, kozulya (capreolus pygargus Pall.): samets (kozel)" ("roe-buck, male goat").

Inzagan (117), defined by Kovalevskiy as "chevreuil, chevrau, jeune chèvre de sibérie" and by Bimbaev as "kozlenok dikoy kozi" ("kid of the wild goat") while Podgorbunskiy gives the corresponding colloquial *indzaga* as Buryat for "young goat, kid."

dönezin, *dönjing*, (128). 4-year old cow.

sarlok, *sarlok*, (129). Yak.

kaiinok, *khainok*, (130). Cross from a bull yak and ordinary cow.

konin, *khoni*, (131). Domestic sheep.

kutsa, *khutsa*, (132). Ram, also called *ere khoni*. A ewe is *eme khoni*, or simply *khoni*.

irgen, *irge(n)*, (133). Wether.

kuragan, *khuraga(n)*, (134). Lamb. There are also qualifiers, used with some variations for several different animals, which prefixed to *khoni* designate, in the order given, sheep in each of their first three years: *shüdeleng*, *khidzaalang*, and *soyoolong*.[1]

argali, *argali*, (135). Wild sheep, especially *Ovis argali*.

imagan, *yamaa(n)*, (136). Goat.

teke, *tekhe*, (137). Male goat, also called *ere yamaa(n)*. A female goat is *eme yamaa(n)* or simply *yamaa(n)*.

serke, *serkhe*, (138). Castrated goat.

isigen, *ishig*, (139). Kid.

ulagan imagan, *ulaan yamaa(n)*, (140). Ibex, *Aegocerus sibirica*, according to Przhevalskiy. Literally "red goat." I cannot surely confirm this designation nor have I found any unequivocal root name for the ibex unless possibly some of the words given by the Russians for "wild goats" refer to this form, see note on p. 22.

küke imagan, *khükhü yamaa(n)*, (141). Literally "blue goat," Przhevalskiy gives this (*"kuku yaman"*) as the Mongolian name of the nahur or burrhel, *Pseudois nayaur*.[2] It is, however, noteworthy that there is a literary word kübker, kübkür, (142), kübker imagan, defined by Kovalevskiy as designating a yellowish-gray wild goat living in hollows in the mountains. It is at least possible that this root and not that for "blue" is involved in the name *khükhü yamaa(n)*, and that kübkür in a spoken form *khü(b)khü(r)* has been assimilated to *khükhü*, "blue," either by the European ear or, because of its real resemblance and sensible meaning, by the native speakers themselves Golstunskiy also gives kübker imagan and equates it with imagan görögesön, "goat beast," i.e., wild goat, an appropriate name for the ibex or for the nahur.

zegeren, *dzeeren*, (143). Antelopes, *Gazella gutturosa* and *subgutturosa*. Przhevalskiy confines this name to *Gazella gutturosa* and always calls *Gazella subgutturosa "karasulta,"* that is, kara segültei, *khara süül-*

[1] So according to Burdukov, but the same three terms apply to horses in their third to fifth years, respectively.

[2] There is nothing improbable in an animal's being called "blue." This adjective is often applied to gray horses.

tei, literally "black-tailed." This is a valid local differentiation by description, but the root word *dzeeren*, which occurs in different but recognizable guises among the Altaic or Turko-Mongolian dialects all over Central Asia, is certainly applied by various peoples to both species, and indeed is used of gazelles in general.[1]

ZODIACAL ANIMALS

The Mongols early adopted and long used the Chinese zodiac and the calendar in which a sixty-year cycle is formed by combining the names of twelve animals, mostly mammals, with the names of the five elements and the words "male" and "female." The twelve zodiacal animals are listed in Mongolian by various travelers (e.g., Huc, Przhevalskiy) and by most grammarians. In the usual order, they are as follows[2]:

1.—kuluguna, *khulagana*, (38), mouse (or rat).

2.—üker, *ükher*, (119), cow (or ox).

3.—bars, *bar*, (63), tiger or leopard.

4.—taulai, *tuulai* (29), hare.

5.—lou, *luu*, (146), dragon (this word is taken bodily from the Chinese, whereas all the others in this list were translated into Mongolian).

6.—mogoi, *mogoi*, (147), snake.

7.—morin, *mori(n)*, (78), horse.

8.—konin, *khoni*, (131), sheep.

9.—micin, *michi(n)*, (19), monkey.

10.—takiia, *takhyaa*, (148), hen (or fowl).

11.—nokai, *nokhoi* (41), dog.

12.—gakai, *gakhai*, (92), pig.

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The following references suffice as authority for most of the statements made, but omit many of the linguistic works, most of the zoölogi-

[1] To give but a single example, Miller (in Carruthers) says that the "Chantos" (eastern Turks) call *Gazella subgutturosa* "jeran." He adds that "the nomads," but which he probably means the likewise Turkish Kirghiz, call it "kara karuk (black tail)," which is parallel with the Mongolian *khara suultei*.

[2] Marco Polo (Vol. I, Book II, Chapter XXXIII, of the Yule-Cordier edition) gives the calendar animals as "The sign of the first year . . . the Lion, of the second the Ox, of the third the Dragon, of the fourth the Dog, and so forth up to the twelfth." This has provoked discussion because it seems certain that the animals were never really used in Polo's order and doubtful whether the lion was properly included. No explanation for the first anomaly, except a failure of memory, is forthcoming. Chavannes (T'oung Pao, 1906, p. 59) explains the use of "lion" by supposing that Marco Polo knew the cycle in Mongolian and thence read "lion" for "tiger" or "leopard." In fact such a mistake is extremely unlikely in Mongolian—Polo would hardly mistake "bars" for "arsalan" and I find no evidence that "bars" ever meant "lion." Pelliot (Journal Asiatique, 1912, p. 592) has already pointed this out, and he concludes that it fortifies the opinion of Yule, Cordier, and himself that Marco Polo knew no oriental language except Persian (in which "lion" and "tiger" are confused). While hesitating to quarrel with such overwhelming authority in a field not my own, I am convinced that Marco Polo did know some Mongolian, as he says he did, but the evidence is not *a propos* here.

cal studies, and almost all the general works of exploration and travel consulted. A complete list of works seen in any one of these three fields would be too long for publication here.[1]

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[1] Without specific reference to this paper but in connection with Mongolian studies generally I am greatly indebted to Mr. A. I. Ward for facilitating examination of books and manuscripts in his remarkable collection and for other assistance, as well as to Mr. D. Gneditch for skilful translation of several Russian works (including one particularly used in preparing this paper, as cited below).

It should be mentioned that the works of Soulié and of Whymant cited were not relied on for any statement here made. They are cited because they are almost the only readily available works on Mongolian in western European languages, but they are not considered authoritative.

All the works cited below are in my own library or that of this Museum, or both.

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